PICAYUNE STRAND RESTORATION PROJECT

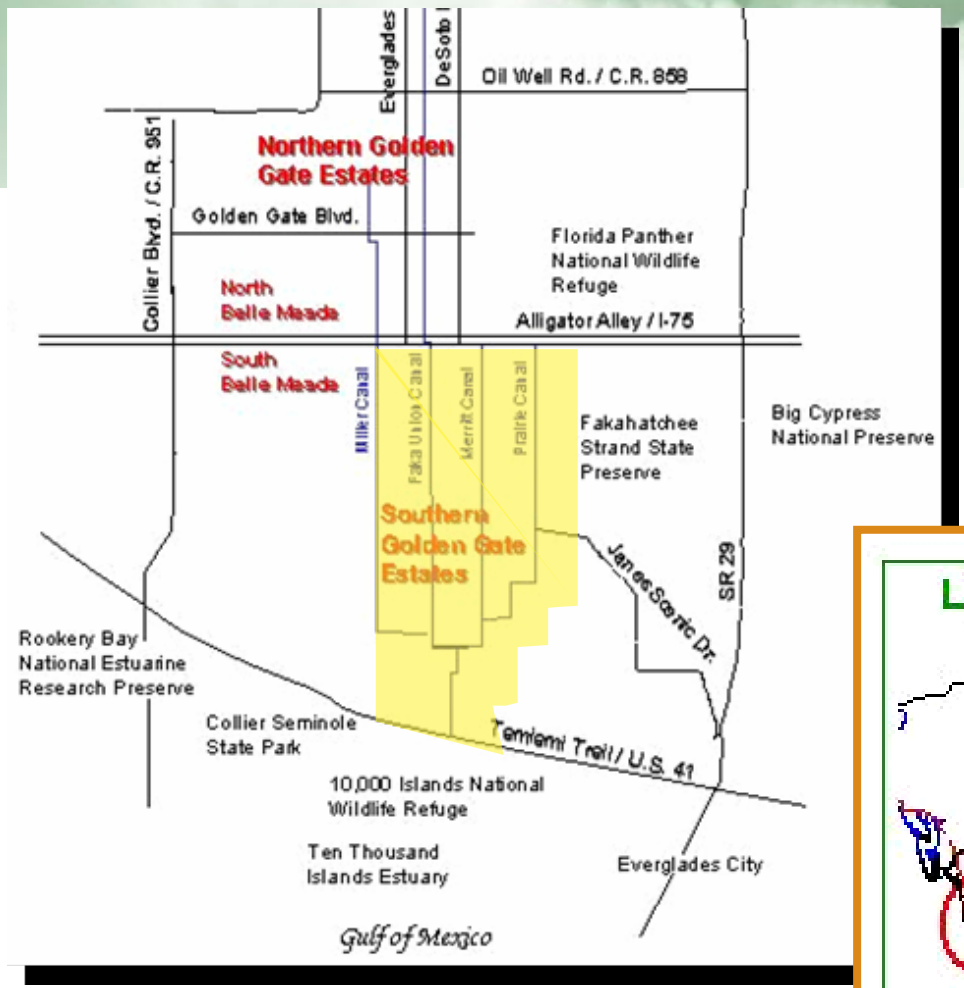
Basis of Design Report-Levees, Canals and Roads

WRAC Meeting
September 7, 2006

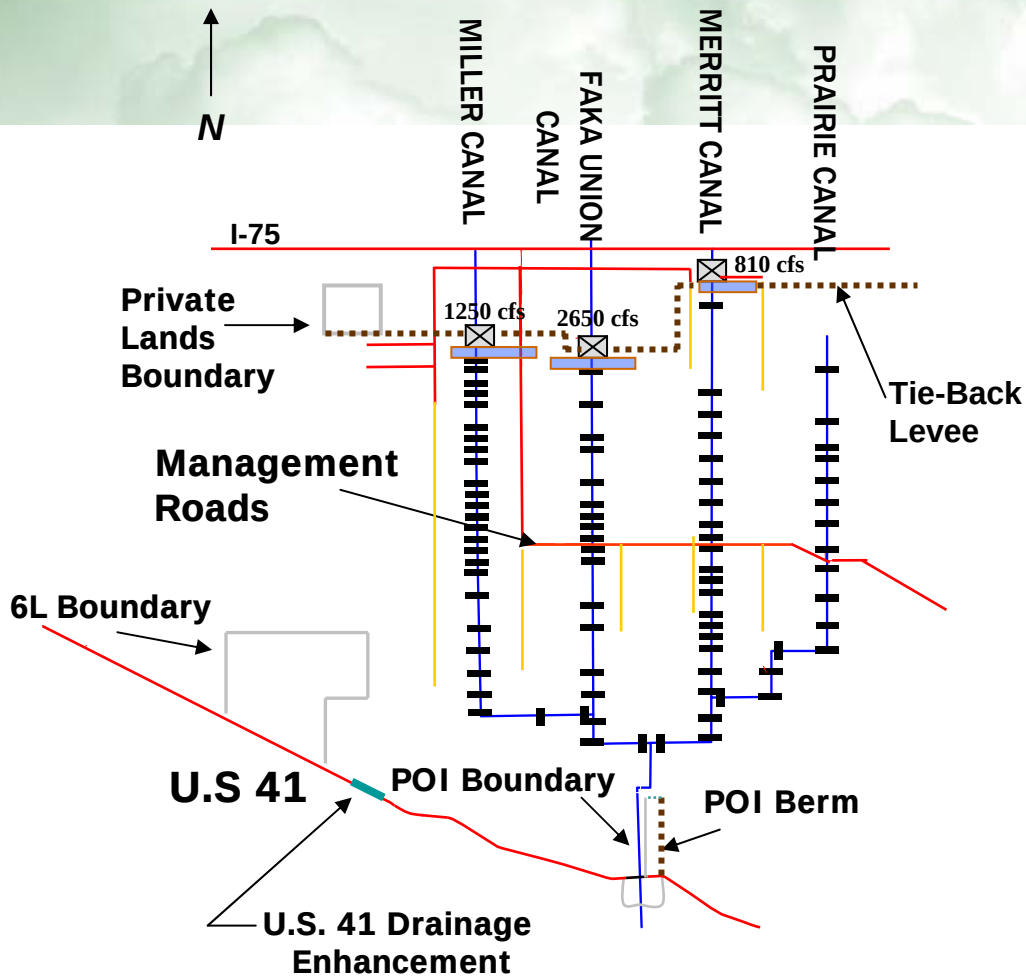
Basis of Design Report for Levees, Roads, and Canals

- Overview
- Changes from Project Implementation Report
- Cost
- Schedule
- Stakeholder Concerns
- Value Engineering Recommendations

Project Area



BODR Recommended Plan



ELEMENTS

- 3 Spreader Canals
- 3 Pump Stations
- Canal Plugs
- Primary All Weather Roads
- Secondary Roads
- Private Lands Boundaries
- Levee / Berm

Construction Costs

Project Component	Budget
Pump Stations	$99.9M
LCR	$53.6M

LCR Schedule

- **Draft BODR July 14th**
- **Preliminary Design Nov 06**
- **Complete Design Mar 07**
- **Start Construction July 07**
- **Construction Complete Aug 09**
  - Levees and/or flood protection measures
  - Pump Stations
- **Canal plugs will be installed after pump station operational testing is complete**

Current Progress

- Pump Stations Design at 60%+
- H&H Modeling Nearing Completion
- Survey and Geotechnical Investigations
- Demolition of Existing Structures
- Prairie Canal Plugging
- Road Removal - Late September

Stakeholder Issues and Concerns

- Optimize Restoration
- Consider Recreational Activities
- Work with Division of Forestry on Road Design
- Perform Additional Design to Confirm BODR Findings
- Determine Impacts of Ground and Surface Water

Value Engineering

- **Accepted Good Engineering Practice**
  - High level analysis and estimating
  - Primarily considers cost saving issues
  - Project function does not change
- **Found Several Areas for Further Study**
  - Combine three pump stations into one or two facilities (up to $37MM)
  - Modify pump discharge piping (~$7.5MM)
  - Modify pump suction design (~$6.5MM)
  - Use screw pump instead of impeller style (~$28MM)
  - Reduce number of pumps (~$7MM)

Value Engineering

Path Forward

1) Stop current pump station design activity
2) Conduct “fatal flaw” analysis
3) Confirm project still meets original goals
4) Prepare more detailed cost estimate
5) Reject or Implement